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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 01/13/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/588,806

Applicant(s)

MO ET AL.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 13
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 45.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

Applicant's arguments filed September 19, 2003, have been fully considered but they are not persuasive.

1. Applicant argued that Dobbins does not disclose point-to-multipoint connectivity between the ports. However, ports associated with end users (Figure 5; col. 5, lines 58-65) provide point-to-multipoint connectivity, where any member of a VLAN (port group) may transmit a packet that is received by all other members of the VLAN based on a common VLAN-ID (col. 3, lines 6-25).
2. Applicant challenged examiner's taking of Official Notice in paragraph 4 of the previous Office Action. However, Tang et al. (US 2003/0165140) discloses transmitting a message from a disparate element to members of the VLAN (transport element) using an identifier (para. 25, lines 6-12; para. 56, lines 9-14; note: the MVLAN tag or ID is associated with only one VLAN when specified).
3. The indicated allowability of claims 11 and 30-33 is withdrawn.

***Drawings***

4. The proposed drawing correction, received on September 19, 2003, is approved. However, the objection to the drawings is maintained until corrected drawings are received.
5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference signs 12, 50 and 52 mentioned on pages 13-15 in the disclosure.
6. Figure 1 is objected to because reference number 32 (far right, top) points to the dotted line of item 64 instead of the solid line representing an inter-nodal link.

Corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobbins et al. (US 5,684,800).

7. Regarding claim 30, Dobbins discloses a node for telecommunication (Figure 5, one of items 11-14) comprising a first port (item 11, port 1) and a second port (item 11, port 3) where each port includes an inherent receive-transmit pair comprising an inherent multiplexer to process egress traffic and an inherent demultiplexer to process ingress traffic (note: traffic to an end station is from different sources and traffic from an end station is destined to different destinations -- col. 5, lines 25-31 and col. 6, lines 13-17). The node also comprises an interface to an external network (Figure 5, item 16 and other trunks to SFPS switches) connected to an internal network (ports 1-3) including the node. The node includes a processing system (Figure 3) to store a first routing model for a first port group including the first port (Figure 7, VLAN 100) and one other geographically distributed port (col. 7, lines 6-12) and to store a second routing model for a second port group including the second port (Figure 7, VLAN 20) and one other geographically distributed port (col. 7, lines 6-12). The first port is programmable to process traffic based on the first routing model and the second port is programmable to process traffic based on the second routing model (col. 6, lines 33-45).

8. Regarding claim 31, the first routing model (Figure 7, VLAN 100) has only the topology of the first port group and the second routing model (VLAN 20) has only the topology of the second port group.

9. Regarding claims 32-33, the processing system comprises an inherent first CPU to operate the node and an inherent second CPU to be the primary CPU for a port group or groups and to distribute the routing model(s) to each of the ports in the port group(s) (col. 7, lines 6-18).

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-10, 12-29 and 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins et al. (US 5,684,800) in view of Tang et al. (US 2003/0165140).

10. Regarding claims 1-3, 5, 7-9, 12-13, 15, 16-23, 26-27, 29 and 34-37, Dobbins discloses a transport element (Figure 1, items 11-14) comprising a port group (items 17-19; abstract, lines 1-4) which comprises several ports, point-to-multipoint connectivity between the ports (col. 3, lines 6-25; note: a broadcast packet from any member of a VLAN will be transmitted to all other members of the VLAN), and an identifier operable to represent the port group as a single element (abstract, lines 1-6; note: VLAN-IDs). However, Dobbins does not disclose that the identifier represents the port group as a single element to disparate elements (Figure 1, items 20). Tang discloses a multicast address that allows an outside end node to transmit to a VLAN (para. 25, lines 6-12; para. 56, lines 9-14; note: the MVLAN tag or ID is associated with only one VLAN when specified). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a port

group identifier that identifies the port group as a single element in the invention of Dobbins in order to simplify routing of data packets to multiple destinations.

11. Regarding claims 4, 6, 14, 28 and 38, in Dobbins the transport element (Figure 5, item 11) interconnects SFPS switches acting as IP routers (col. 5, lines 11-15; col. 2, lines 5-13) and Frame Relay switches (col. 1, lines 33-35 and col. 2, lines 10-13; note: Frame Relay is a standardized commonly used access technology).

12. Regarding claims 10, 24-25, 39 and 40, in Dobbins an inherent processor (Figure 3) generates and distributes routing information (Figure 3, item 88).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins in view of Tang as applied to claim 10 above, and further in view of Feldman et al. (US 6,148,000).

13. Dobbins in view of Tang does not disclose a router information base (RIB) or a forwarding information base (FIB). Feldman discloses a RIB for providing a table for storing routing information for an entire network and for supplying information to a FIB which is used to determine appropriate output ports for packets (col. 8, line 61 through col. 9, line 14). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a RIB and FIB for use in making routing determinations in the invention of Dobbins in order to efficiently determine appropriate routing decisions for packets.

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Perlman (US 6,580,722) discloses transmitting a packet from an outside source to members of a group (see abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The fax number for Technology Center (TC) 2600 is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



January 6, 2004



DANG TON  
PRIMARY EXAMINER